Care or neglect?

Care or Neglect?: Evidence of Animal Disease in Archaeology, László Bartosiewicz and Erika Gál (Eds.). Oxbow Books Limited, Oxford (2018). 300pp.

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The study of disease in archaeological animals can provide insights into the complexities of past human-animal relationships, from the treatment of individual animals (Binois et al. 2013) to narratives of significance for global history (Taylor et al. 2018). This volume provides case studies in animal palaeopathology that explore the diversity of these relationships. It is the proceedings of the sixth meeting of the Animal Palaeopathology Working Group (APWG) of the International Council for Archaeozoology (ICAZ). The meeting was held in Budapest in 2016.

Following an introduction by Bartosiewicz and Gál, seventeen chapters consist of diverse case studies spread across prehistoric and historic Europe and Asia. Horses and dogs are particularly well-represented in studies in this volume. This is linked to the fact that these taxa are often subject to burial of complete carcasses, due to their close relationship with humans within different cultures. Palaeopathological evidence in Hellenistic dogs from Beirut, Lebanon are analysed by Hourani, and Bellis presents a very useful and extensive literature review of evidence from dogs in Roman Britain. Baron discusses pathology in both horses and dogs buried in association with a large Avar cemetery from Vienna, Austria, dating to the 8th century AD. The bias that selected burial imposes on understanding the use and health of both males and female horse populations if one sex dominates the archaeological record is explored in a chapter by Cross, along with the potential implications for husbandry and care. Two further papers focus on pathological records in horses. Lyublyanovics presents a rare case of a healed pelvic fracture in a medieval horse from Karcag–Orgondaszentmiklós, Hungary and discusses the implications of this for the value placed on the animal. In a very valuable study, Taylor and Tuvshinjargal explore the utility of asymmetric deformations in horse skulls as evidence for riding mounts.

A number of papers investigate palaeopathological records within disarticulated and fragmentary zooarchaeological assemblages. Case studies come from Neolithic Çatalhöyük, Turkey (Pawłowska), Eneolithic Polyanitsa, Bulgaria (Bartosiewicz et al.), Roman Carnuntum, Austria (Gál and Kunst), and Caričin Grad, southern Serbia (Marković et al.). When zooarchaeological assemblages suffer heavy butchery, fragmentation, and other forms of taphonomic attrition, it is often harder to reach differential diagnoses of disarticulated remains. A particular focus of intra-site taphonomy is a feature considered by Bartosiewciz in his second chapter ('Taphonomy and disease prevalence in animal palaeopathology').

Three chapters focus exclusively on non-mammalian remains. Two particularly welcome chapters are those on fish bone pathology: one by Harland and Van Neer, and the other by Kivikero. Baron, in her second chapter on the Avar cemetery from Vienna, analyses a very large population of chicken burials from the site, comprising of 323 individuals.

Discussing a much smaller dataset, Daróczi-Szabó and Daróczi-Szabó's chapter presents rare cases of multi-horned sheep from Hungary. The chapter by Bárány describes and interprets a recurrent pathology in the mandibles of pigs, namely the overgrowth of the root of the lower canine. Recorded on 18 of 374 mandibles at the site of Mosaburg in Hungary, Bárány hypotheses that this is caused by lack of normal attrition between the upper and lower canines, resulting in over-production of adult stem cells at the root. Finally, a fascinating chapter by Darton and Rodet-Belarbi

presents a case study of damage caused by permanent fetters in present-day sheep on the island of Delos, Greece. This is a valuable study – such control datasets form a crucial part of placing animal palaeopathology on a solid analytical footing. This chapter also demonstrates the human 'neglect' referred to in the title of the volume, with some fairly extreme pathologies illustrated.

A very useful feature of the volume is that it is well illustrated – essential for the presentation and discussion of pathologies. Like other key works in animal palaeopathology, such as Baker and Brothwell (1980) and Bartosiewicz (2013), this will likely be of great use to researchers actively working on pathologies in zooarchaeological assemblages. There are some very useful regional case studies of pathological specimens from excavated fragmentary zooarchaeological assemblages. One thing to note is that not all authors calculate prevalence rates of pathologies (the number of cases of disease or infection in relation to the unit of population in which they), useful in considering inter-population variability. The papers presented in this volume demonstrate how animal palaeopathology can provide unique insights into the nature and intensity of past human-animal relationships. As datasets are generated and published, we will be able to explore more complex questions relating to animal and human health, which are so closely connected (e.g. Fournié *et al.* 2017). The diversity of research published in this volume by Bartosiewicz and Gál clearly demonstrates a vibrant and active research community engaged in animal palaeopathological work. The book will be a useful aid to all those working in this field.

References

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